

Program

2008 Wind Turbine Blade Workshop

Hosted by:
Sandia National Laboratories
Co-Hosted by:
National Renewable Energy Laboratory (NREL)
And supported by
The US Department of Energy

May 6 Version

Sunday, May 11, 2008

5:00pm-8:00pm Early Check-in, Presentation Submission and Booth Setup

Monday, May 12, 2008

7:15am-8:15am Check-in and Continental Breakfast

Welcoming Remarks and Overviews

8:15am Welcome & Introductions, Tom Ashwill and Daniel Laird, Sandia National Laboratories
8:30am Wind Energy Industry Overview, Daniel Laird, Sandia National Laboratories
8:45am Blades: Trends and Research Update, Tom Ashwill, Sandia National Laboratories

Manufacturers & Fabrication – Tom Ashwill

9:15am Turbine Blades from Ground Level, Gary Kanaby, Knight & Carver
9:40am TPI Commercial Blade Developments, Stephen Nolet, TPI
10:05am Break
10:25am DeWind Blade Experiences, Stefan Sanner, DeWind
10:50am Probabilistic Design with Focus on Blades, Dick Veldkamp, Vestas R&D Global Research
11:15am Blade Manufacturing at Siemens Wind Power A/S, Christian Brixen Christiansen, Siemens Wind Power A/S
11:40am Questions for Session Speakers
11:55pm Lunch

Small Wind – Trudy Forsyth

- 1:00pm Overview of Small Wind Turbines, Trudy Forsyth, National Renewable Energy Laboratories***
- 1:25pm Small Wind Turbine Blade Processing Research at Novakinetics, Michelle Corning, Novakinetics***
- 1:50pm High-efficiency Engineered Blades for Small Turbines, Kyle Wetzel, Wetzel Engineering***
- 2:15pm Materials and Processes for Volume Manufacturing of Small Wind Turbine Blades, David Calley, Southwest Windpower***
- 2:40pm Questions for Session Speakers***
- 2:55pm Break***

Blade Testing – Jason Cotrell

- 3:10pm Prototype Laboratory and Field Testing, Josh Paquette, Sandia National Laboratories***
- 3:35pm Blade Testing at NREL, Scott Hughes, National Renewable Energy Laboratories***
- 4:00pm U.S. Commercial Blade Testing, Jason Cottrell, National Renewable Energy Laboratories***
- 4:25pm Commercial Blade Testing in Massachusetts, Ian Springsteel, MTC***
- 4:50pm Questions for Session Speakers***
- 5:05pm Announcements & Adjourn***
- 5:45pm-7:00pm Wine & Cheese Mixer***

Dinner On Your Own

Tuesday, May 13, 2008

7:00-8:00am Late Check-in and Continental Breakfast

Active Controls & Aerodynamics – Dale Berg

- 8:00am Highlights of IEA Topical Expert Meeting on Smart Structures & SNL Active Load Control Efforts, Dale Berg, Sandia National Laboratories***
- 8:25am Adaptive Trailing Edge System, Thomas Buhl, Risoe***
- 8:50am Stability Issues for an Adaptive Trailing Edge System, Mac Gaunaa, Risoe***
- 9:15am Questions for Session Speakers***
- 9:30am Break***
- 9:45am Smart Blade Technology, Julie Teuwen, Delft***
- 9:10am Blunt Trailing Edge Airfoils Experimental Results, Case van Dam, UC Davis***

10:35am *Aerodynamic Winglet Optimization, Soren Hjort, Siemens Wind Power A/S*
11:00am *Questions for Session Speakers*

Materials & Codes – Daniel Laird

11:15am *Recent Fatigue Test Results for Blade Materials, John Mandell, Montana State University*
11:40am *Subcomponent and Materials Test Methods and Results, Rogier Nijssen, WMC*
12:05pm *Questions for Session Speakers*
12:15pm *Lunch*
1:15am *Windstrand, Mala Nagarajan, Owens Corning*
1:40pm *Influence of Fiber Glass Sizings and Resin Selection on Laminate Performance, Jim Watson, PPG Fiberglass R&D*
2:05pm *Blade Design with Engineered Core Materials, Fred Stoll, Webcore Technologies*
2:30pm *Questions for Session Speakers*
2:45pm *Break*
3:00pm *FOCUS, an Integrated Wind Turbine Design Tool, Niels Duineveld, WMC*
3:25pm *NREL Structural and Aeroelastic Codes, Jason Jonkman, National Renewable Energy Laboratories*
3:50pm *Vacuum Infused Thermoplastic Composites for Wind Turbine Blades, Julie Teuwen, Delft*
4:15pm *NuMAD, Structural Analysis Code, Daniel Laird, Sandia National Laboratories*
4:40pm *Questions for Session Speakers*
4:55pm *Announcements & Adjourn*
Dinner On Your Own

Wednesday, May 14, 2008

7:00-8:00am Continental Breakfast

Sensor Technologies & Applications - Mark Rumsey

8:00am *Overview of Sandia Sensor Blade Project, Mark Rumsey, Sandia National Laboratories*
8:25am *Fiber Optic Sensing, Jason Kiddy, Aither Engineering*

- 8:50am** ***Estimation of Operational Loading and Deflection with Inertial Measurement, Jon White, Purdue***
- 9:15am** ***Questions for Session Speakers***
- 9:25am** ***Break***
- 9:40am** ***Low Cost Inspection for Improved Blade Reliability, Doug Cairns, Montana State University***
- 10:05am** ***Advanced Optical Measurement Technologies for NDE, Matt Crompton, Dantec Dynamics***
- 10:40am** ***Fibre Optic Sensing Technology and Applications in Wind Energy, Phil Rhead, Insensys Limited***
- 11:05am** ***Questions for Session Speakers***

Blade Reliability – Paul Veers

- 11:15pm** ***Blade Reliability Initiative, Paul Veers Sandia National Laboratories***
- 11:40pm** ***Initial National Reliability Database Results, Roger Hill, Sandia National Laboratories***
- 12:05am** ***Questions for Session Speakers***
- 12:20am** ***Wrap-up Comments & Adjourn***